

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
 )  
Campbell et al. ) Group Art Unit: 1632 (Prior Appl.)  
 )  
Serial No.: Unknown ) Examiner: D. Crouch (Prior Appl.)  
(Prior Appl. Ser. No. 09/650,285) )  
 )  
Filed: November 21, 2001 )  
 )  
For: UNACTIVATED OOCYTES AS )  
CYTOPLAST RECIPIENTS FOR )  
NUCLEAR TRANSFER )

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

**PRELIMINARY AMENDMENT**

Prior to the examination of the above application, please amend this application  
as follows:

**IN THE CLAIMS:**

Please cancel claims 1-18.

Please add the following new claim:

- 19. (New) A method of producing a non-human mammalian embryo by  
nuclear transfer comprising:
- (i) transfer of a nucleus of a non-human mammalian cell into an unactivated,  
enucleated metaphase II-arrested oocyte of the same species as the donor cell nucleus;
  - (ii) activation of the recipient oocyte containing the donor cell nucleus; and
  - (iii) incubation of the activated oocyte to provide an embryo;

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N.W.  
WASHINGTON, DC 20005  
202-406-4000

wherein the donor cell nucleus is from a mammalian differentiated cell in the G1 phase of the cell cycle. --

REMARKS

Claims 1-18 have been canceled. Claim 19 is new and is fully supported by the specification. Upon amendment, claim 19 is pending in this application. Claim 19 corresponds substantially to the claims in U.S. Patent No. 6,235,970, issued May 22, 2001.

Applicants have filed another application on November 21, 2001 (Attorney Docket No. 07681.0018-01) having a claim that corresponds substantially to the claims in U.S. Patent No. 6,235,969, issued May 22, 2001. The claims in the two applications differ in that the claim in applicants' other application (Attorney Docket No. 07681.0018-01) recites that the donor cell has passed start in the mitotic cell cycle and is in the G1 phase of the cell cycle. The claim in the instant application recites that the donor cell is in the G1 phase of the cell cycle, but does not recite that the cell has passed start.

As the specification explains, start occurs in the G1 phase of the cell cycle.

The mitotic cell cycle has four distinct phases, G1, S, G2, and M. The beginning event in the cell cycle, called start, takes place in the G1 phase and has a unique function. The decision or commitment to undergo another cell cycle is made at start. Once a cell has passed through start, it passes through the remainder of the G1 phase, which is the pre-DNA synthesis phase.

(Specification at 7, lines 26-32.) Therefore, cells in the G1 phase of the cell cycle that have passed through start have made the commitment to undergo another cell cycle.

Cells in the G1 phase of the cell cycle that have not passed through start have not made this commitment. Consequently, cells in the G1 phase of the cell cycle may have

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000

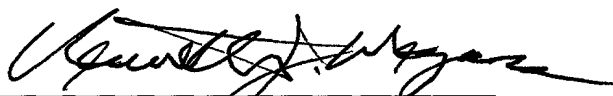
made or not made this commitment depending on whether they have passed through start.

If there is any fee due in connection with the filing of this Preliminary Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: November 21, 2001

By: 

Kenneth J. Meyers  
Reg. No. 25,146  
Tel: 202-408-4000  
Fax: 202-408-4400  
E-mail: MEYERSK@finnegan.com

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000

PATENT  
Customer No. 22,852  
Attorney Docket No. 07681.0019-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
)  
Campbell et al. ) Group Art Unit: 1632 (Prior Appln.)  
)  
Serial No.: Unknown ) Examiner: D. Crouch (Prior Appln.)  
(Prior Appl. Ser. No. 09/650,285) )  
)  
Filed: November 21, 2001 )

For: UNACTIVATED OOCYTES AS CYTOPLAST  
RECIPIENTS FOR NUCLEAR TRANSFER

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

SUBMISSION OF FORMAL DRAWINGS

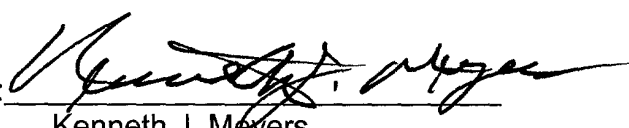
Subject to the approval of the Examiner, applicants herewith submit 1 sheet of Formal Drawings (Figure 1). If the Formal Drawings for any reason are not in full compliance with the pertinent statutes and regulations, please so advise the undersigned.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Date: November 21, 2001

By:   
Kenneth J. Meyers  
Reg. No. 25,146  
Tel: 202-408-4000  
Fax: 202-408-4400  
E-mail: MEYERSK@finnegan.com

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000